March 2025

Biographical Sketch – J. David Neelin

Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles
405 Hilgard Avenue, Los Angeles, CA 90095-1565 (310) 206-3734 neelin@atmos.ucla.edu

Education and Training

University of Toronto, Department of Physics, Bachelor of Science, Hon.: June, 1981
University of Toronto, Department of Physics, Master of Science: August, 1983
Princeton University, Geophysical Fluid Dynamics Program, Doctorate: October, 1987,
Dept. of Earth, Atmospheric and Planetary Sciences, MIT, Postdoctoral Associate: Sept. 1987–Aug. 1988

Research and Professional Experience

Distinguished Professor, Dept. of Atmospheric and Oceanic Sciences, UC Los Angeles July 2016–present
Professor, Dept. of Atmospheric and Oceanic Sciences, UC Los Angeles July 1995–June 2016
Chair, Dept. of Atmospheric and Oceanic Sciences, UCLA 7/2010-7/2013
National Center for Atmospheric Research, Scientific Visitor (Guggenheim Fellowship), 1-4/2008
Professor Invité, Ecole Normale Supérieure, Paris 5-6/2008
Vice-Chair, Dept. of Atmospheric and Oceanic Sciences, UCLA 1/2004-1/2008, 1/2009-6/2010
Associate Professor, Dept. of Atmospheric Sciences, UC Los Angeles July 1992–July 1995
Visiting Associate Professor, Massachusetts Institute of Technology, Jan. 1994–May 1995 (Houghton Lectureship)
Assistant Prof., Dept. of Atmospheric Sciences, University of California, Los Angeles, 9/1988–6/1992

Selected Publications

1. Schiro, K. A., Ahmed, F., Giangrande, S. E. & Neelin, J. D. GoAmazon2014/5 campaign points to deep-inflow approach to deep convection across scales. *Proc. Nat. Acd. Sci.,* 115, 201719842 (2018).
2. Swain, D. L., Langenbrunner, B., Neelin, J. D. & Hall, A., Increasing climate volatility in 21st century California. *Nature Climate Change*, **8**, 427–433 (2018).
3. Martinez-Villalobos, C., & Neelin, J. D. Climate models capture key features of extreme precipitation probabilities across regions. *Environmental Research Letters*, (2020).
4. Neelin, J. D., Martinez-Villalobos, C., Stechmann, S. N., Ahmed, F., Chen, G., Norris, J. M., Kuo, Y.-H. & Lenderink, G. Precipitation extremes and water vapor. *Current Climate Change Reports* 17–33 (2022).
5. Duan, S. Q., Ahmed, F. & Neelin, J. D. Moist heatwaves intensified by entrainment of dry air that limits deep convection. Nature Geoscience, doi:10.1038/s41561-024-01498-y (2024).
6. Kuo, Y.-H. & Neelin, J. D. Anelastic convective entities. Part 2: Adjustment processes and convective cold top. J. Atmos. Sci., 82, 625–640, doi:10.1175/JAS-D-24-0130.1 (2025).

Synergistic activities (selected)

Deputy Editor, Science Advances (2022-present)
Chair, National Oceanographic and Atmospheric Administration Model Diagnostics Task force (2018-present)
National Ctr. for Atmos. Research, Climate & Global Dynamics Laboratory Advisory Board (2015-2021)
Textbook and materials (*Climate change and climate modeling*, Cambridge Univ. Press, 282 pp., 2011)
Contributing author, 5th & 2nd Assessment Reports of the Intergovernmental Panel on Climate Change
Reviewer, Third and Fourth Assessment Reports of the Intergovernmental Panel on Climate Change

Awards (selected)

Charney Medal of the American Meteorological Society (2019)
Bert Bolin Global Environmental Change Award/Lecture, American Geophysical Union (2017)
Fellow of the Royal Society of Canada (elected 2015)
Fellow, American Association for the Advancement of Science
Fellow, American Geophysical Union, , American Meteorological Society, Royal Meteorological Society
Guggenheim Memorial Foundation Fellowship
Professeur Invité, Ecole Normale Supérieure, Paris
NSF Special Creativity Award 1999-2000
Presidential Young Investigator Award 1991-1996